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Subject: Environmental Defense comments on Barium Stearate (CAS# 6865-35-6)

(Submitted via Internet 6/5/06 to oppt.ncic@epa.gov, hpv.chemrtk@epa.gov, boswell.karen@epa.gov, chem.rtk@epa.gov, MTC@mchsi.com, and Wendykoch@eponallc.com)

Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for **Barium Stearate (CAS# 6865-35-6).**

Chemtura Corporation, in response to EPA's High Production Volume (HPV) Chemical Challenge, has submitted a test plan and robust summaries for barium stearate. According to this submission, barium stearate, the barium salt of stearic acid, is used as a lubricant/processing aid in PVC compounding. Since this salt readily disassociates into barium and stearic acid, these two chemicals, which have been subjects of previous studies, are proposed as surrogates for barium stearate. We support this proposal.

Our review of this submission indicates that the test plan is well-organized to summarize available data on barium stearate, barium and stearic acid in a number of well-referenced tables. Barium and barium salts have been subjects of a number of very thorough studies that are described in the robust summaries. Stearic acid has been less well-studied than barium, but it can probably be considered safe, as it is a naturally occurring component of virtually all human and animal diets. According to this submission, stearic acid is the most common long chain fatty acid in the human diet. Our review of the studies described in the test plan and robust summaries indicates that barium stearate and each of its component parts pose minimal risk to the environment or exposed humans. Barium induced minimal toxicity and no increase in tumor incidence or reproductive/developmental toxicity when administered at relatively high doses in both short-term and chronic studies. Barium sulfate has actually been approved and used as a diagnostic drug for many years. As mentioned above, stearic acid is commonly found in many foods, has been found to be of low toxicity in limited studies and has a long history of apparently safe use in a number of consumer products.

In summary, this is a good submission that meets the spirit and requirements of the HPV Challenge. With the addition of the one additional study proposed, currently available data adequately address SIDS elements required by the HPV Challenge. The only revision we would request in this submission would be the addition of the structural formula of barium stearate.

Thank you for this opportunity to comment.

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